

PROPERTY PLANNING COMMON ELEMENTS

COMPONENTS OF MASTER PLANS

HABITATS AND THEIR MANAGEMENT

Wetland Shrub – Alder

Description

Wetland shrub communities are wetland sites with <10% trees and 50% or more persistent shrubs. Alder shrub wetlands have greater than 50% alder. These communities often are minerotrophic and dominated by tall shrubs, especially speckled alder (also known as “tag” alder), with red-osier dogwood, nannyberry, cranberry viburnum, wild currants, and willows among the shrub associates. Sapling or seedling trees of species such as northern white-cedar, black ash, American elm, yellow birch, balsam fir, tamarack, and white pine may be present. Characteristic herbaceous species include orange jewelweed, Canada bluejoint grass, asters, boneset, rough bedstraw, spotted Joe-Pye-weed, marsh fern, sensitive fern, and arrow-leaved tear-thumb. Groundwater seepage is an important attribute of alder communities. Seepage areas often are indicated by the presence of species such as skunk-cabbage, marsh-marigold, swamp saxifrage, American golden saxifrage, and marsh pennywort.

Alder is common and widespread throughout the glaciated portions of northern Wisconsin, where it occurs on lake and stream margins and in basins experiencing lateral movement of oxygenated and nutrient-enhanced groundwater. In central Wisconsin, alder occurs in and on the margins of the poorly drained unglaciated areas formerly occupied by Glacial Lake Wisconsin. It is rare and local in the south, sometimes associated with other plant communities, such as conifer swamps, that are more common in northern Wisconsin. Alder can be a stable community that persists in some locations for long periods of time. In other locations, it may succeed to more forested cover types, most commonly conifer swamp or hardwood swamp. It can also occupy large areas formerly vegetated with conifer swamps that were logged during the Cutover (1880s-1920s) and/or where water tables rose or fell as a result of logging, beaver activity, or drainage. Alder is therefore likely more common now than it was historically.

Alder is an important component of grouse and woodcock habitat in Wisconsin.

Ecological Landscape Opportunities

Ecological Landscape	Opportunity*
Central Sand Plains	M
North Central Forest	M
Central Sand Hills	I
Forest Transition	I
Northeast Sands	I
Northern Highland	I
Northwest Lowlands	I
Northwest Sands	I
Superior Coastal Plain	I
Western Coulee and Ridges	I
Central Lake Michigan Coastal	P



Ecological Landscape	Opportunity*
Northern Lake Michigan Coastal	P
Southeast Glacial Plains	P
Western Prairie	P

*M = Major; major opportunity exists in this Landscape; many significant occurrences are recorded, or restorations likely to be successful.

I = Important; several occurrences important to maintaining the community in the state occur in this Landscape.

P = Present; community is present in the Landscape but better opportunity exists elsewhere.

Rare Species

Many Species of Greatest Conservation Need (SGCN) are associated with alder based on the findings in [Wisconsin's 2015 Wildlife Action Plan](#). To learn more, visit the [Wetland communities page](#) and click on "Alder Thicket" under "Explore non-forested wetlands".

Threats

- Altered hydrology can destroy shrub wetlands or degrade their habitat quality.
- Non-native invasive plants such as reed canary grass, glossy buckthorn, Canada thistle, European marsh thistle, and common burdock, as well as some weedy/aggressive native species such as stinging nettle, are a threat to alder.
- Many alder stands in southern Wisconsin have been pastured, a practice which can degrade habitat quality (alter or obliterate native plants, lead to an increase in weedy generalist species, and facilitate spread of exotic plants, compact soil) and increase stream sediment and nutrient loads.

Management Techniques

- Passive management
- Mowing/brushing
- Pesticide treatments

Management Prescriptions

- When deciding on a management approach, consider whether occupancy of the site by alder has been long-term and apparently stable or whether it is a shorter-term successional stage (e.g., caused by the removal of a beaver dam or heavy logging of a conifer swamp). Alder likely will not require active management to be self-sustaining on sites with stable/natural hydrology. The decision of whether to maintain alder on successional sites or sites with altered/compromised hydrology should be made after considering the landscape context of the site, suitability of the site to support other native communities and likelihood of reestablishment, and the need to prevent any further deterioration of the site.
- Maintain site hydrology; restore where appropriate and feasible.



- Alder shearing for woodcock habitat has become a more common practice in recent years. Using heavy equipment to implement this practice can damage sensitive soils, disrupt hydrology, and facilitate invasion of the site by exotic plants. Assess the proximity of invasive plants, especially reed canary grass, glossy buckthorn, and European marsh thistle, and the likelihood of inadvertently aiding their spread, before introducing heavy equipment to a site, and conduct management only under frozen-ground or very dry conditions to prevent rutting and soil damage and to protect site hydrology. Sites with standing water, saturated soils throughout the year, or heavy sedge growth are likely too wet and are unsuitable for this management practice.
- In stands being managed for woodcock:
 - Cut alder on a 20-year rotation; mow or shear strips that are 50-100 feet wide, or cut alder in blocks if necessary.
 - Position strips so that an adjacent strip can be cut every 5 years. If near a water source, orient strips perpendicularly in order to provide a soil moisture gradient for woodcock feeding opportunities.
 - Leave some areas of alder uncut, particularly in sites adjacent to mature forest, for species that prefer tall shrubs for nesting.